Benefits of manufacturing poultry bedding from clean end-of-life timber pallets, crates, and timber offcuts.

Background

140,000 tonnes of end-of-life timber pallets and crates are disposed to landfills in the Sydney Metropolitan Area each year. Much of this timber could be used for beneficial purposes.

One such beneficial purpose is poultry bedding. The chicken farming industry is growing at approximately four per cent per annum, resulting in increased demand for bedding.

Direct Pallets and Recycling, a Sydney-based pallet supply, repair and reuse company, began producing poultry bedding from end-of-life timber pallets, crates and clean timber offcuts in May 2012. This was in response both to a clear demand for disposal alternatives to landfill and the need for animal bedding. Today they can produce (in normal business hours) 1,500 tonnes (6,000m³) of bedding each month. Bedding is supplied to chicken farms, as well as the horse and cattle bedding markets.

Key facts

- 140,000 tonnes of end-of-life timber are disposed in landfill in Sydney annually.
- Recycling fees for end-of-life timber can be 75% less than the landfill fee
- 0.67 tonnes of carbon dioxide is saved for each tonne of timber packaging diverted from landfill.
- Poultry farmers in Sydney require 4,000m³ per month of bedding.
- The poultry industry is growing at 4% annually resulting in increased demand for bedding.

This fact sheet has been prepared to highlight opportunities for the timber recycling industry to recover appropriate end of life timber pallets and creates for manufacturing into quality poultry bedding.

The process

Direct Pallets and Recycling adhere to the following process to produce the bedding:

1. Clean end-of-life timber pallets are either picked-up or received by Direct Pallets and Recycling at their facility in Ingleburn. CCA treated timber and MDF is not accepted. However Methyl Bromide fumigated (stamped MB) and Heat Treated (stamped HT) timber pallets and offcuts are fine. Timber suppliers pay a recycling fee per tonne or per pallet that is around 75 per cent less than landfilling.

2. Recovered pallets are sorted. Those unable to be reused yet suitable for recycling are processed into animal bedding.

3. Pallets for recycling into bedding are double-checked for quality and any remnant plastic wrapping / rubbish / cardboard / MDF removed.

4. Timber pallets are shredded and screened multiple times before being graded to specifications agreed with poultry farmers. Shredders are fitted with dust extractors to remove dust and high powered rotating magnets to remove metal and nails.

5. Finished bedding is stored onsite in stainless steel lined bays inside a large secure concrete panelled factory to protect it from excess moisture and cross-contamination.

6. Graded bedding is transported in specialised clean, covered walking floor trucks to users. From July 2012 bedding will be available in compressed 20 kilogram plastic wrapped bale bags.

All bedding is regularly tested to ensure top quality. Tests are conducted for presence of CCA treated timber, other contaminants, sizing and moisture levels.
Benefits

Direct Pallets and Recycling, businesses and poultry farmers all benefit from the production of bedding form end-of-life timber. These benefits include:

- another steady income stream for Direct Pallets and Recycling
- Direct Pallets and Recycling can produce over 1,500 tonnes per month of different types of bedding, thus helping meet demand from all bedding users
- ten sustainable jobs have been created by Direct Pallets and Recycling
- businesses can make positive contribution to the environment by reducing the amount of end-of-life timber packaging entering landfill. It is estimated that diverting one tonne of timber packaging from landfill results in 0.67 tonnes of carbon dioxide equivalent emission reduction
- reduced transport and disposal costs for waste timber pallets and clean timber offcuts for many Sydney businesses
- poultry farmers have access to another clean and reliable bedding stream.

Conclusion

Direct Pallets and Recycling have invested considerable capital to enter this market. This investment will allow them to supplement their income and grow their business.

At the same time they have created jobs and helped to reduce impacts on the environment by NSW businesses.

Note on the Specification, Guidelines and Exemptions

To assist timber recyclers with producing bedding material that meets the requirements of the poultry industry, a draft Specification and Quality Control Guidelines have been developed by the Timber Development Association with support from the NSW Environment Protection Authority (EPA). Input has been provided by poultry growers, chicken meat processors and timber recyclers.

The draft Specification details acceptable particle size, moisture content and sampling and testing regime. The Quality Control Guidelines provide a step by step guide to the bedding production process. Copies of these documents will be available on the National Timber Product Stewardship Group website.

All wood accepted for production into poultry bedding must meet the relevant Resource Recovery exemptions approved by the EPA. This includes the Raw Mulch Exemption 2008. Details on exemptions can be found at [www.environment.nsw.gov.au/waste/generalRRE.htm](http://www.environment.nsw.gov.au/waste/generalRRE.htm).

Direct Pallets & Recycling

Phone: (02) 9605 8444
Address: 3B Williamson Rd, Ingleburn, NSW

More information

More information on the Specification and Quality Control Guidelines can be found on the National Timber Product Stewardship Group website [www.timberstewardship.org.au](http://www.timberstewardship.org.au).

References


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